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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,686	11/21/2005	Jose Miguel Mulet Salort	BJS-4982-12	4546
23117 7590 11/19/2007 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER COLLINS, CYNTHIA E	
			ART UNIT 1638	PAPER NUMBER
			MAIL DATE 11/19/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/552,686	Applicant(s) MULET SALORT ET AL.	
	Examiner Cynthia Collins	Art Unit 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-18 and 20-26 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Applicant should additionally note that claim 19 is not included in any group because claim 19 as currently drafted is dependent upon itself.

Group I, claim(s) 1-9, 13-14, 17 and 20-21, drawn to a method comprising introducing a genetic modification in plants and selecting for modulated expression in said plants of a nucleic acid sequence of SEQ ID NO:1 encoding a protein of SEQ ID NO:2 belonging to the family of CHMP proteins, a plant, and plant part or plant cell, a genetic construct, and a plant host cell.

Group II, claim(s) 1-9, 13-14, 17 and 20-21, drawn to a method comprising introducing a genetic modification in plants and selecting for modulated expression in said plants of a nucleic acid sequence of SEQ ID NO:3 encoding a protein of SEQ ID NO:4 belonging to the family of CHMP proteins, a plant, and plant part or plant cell, a genetic construct, and a plant host cell.

Group III, claim(s) 1-9, 13-14, 17 and 20-21, drawn to a method comprising introducing a genetic modification in plants and selecting for modulated expression in said plants of a nucleic acid sequence of SEQ ID NO:5 encoding a protein of SEQ ID NO:6 belonging to

the family of CHMP proteins, a plant, and plant part or plant cell, a genetic construct, and a plant host cell.

Group IV, claim(s) 1-9, 13-14, 17 and 20-21, a method comprising introducing a genetic modification in plants and selecting for modulated expression in said plants of a nucleic acid sequence of SEQ ID NO:7 encoding a protein of SEQ ID NO:8 comprising a SEC14 domain and exhibiting lipid transfer activity, a plant, and plant part or plant cell, a genetic construct, and a plant host cell.

Group V, claim(s) 1-9, 13-14, 17 and 20-21, a method comprising introducing a genetic modification in plants and selecting for modulated expression in said plants of a nucleic acid sequence of SEQ ID NO:9 encoding a CRYO5 like plant protein of SEQ ID NO:10 comprising a RING finger domain, a serine rich domain and an acid domain which comprises the signature "HDQHRDMRLDIDNMSYEELLALEERIG", in which no more than 6 substitutions may occur, a plant, plant part or plant cell, a genetic construct, and a plant host cell.

Group VI, claim(s) 2, 10-14 and 20-21, drawn to a method comprising introducing a genetic modification in yeast and selecting for modulated expression in said yeast of a nucleic acid sequence of SEQ ID NO:1 encoding a protein of SEQ ID NO:2 belonging to the family of CHMP proteins, a transgenic yeast cell, a genetic construct, and a bacterial, yeast or fungal host cell.

Group VII, claim(s) 2, 10-14 and 20-21, drawn to a method comprising introducing a genetic modification in yeast and selecting for modulated expression in said yeast of a nucleic acid sequence of SEQ ID NO:3 encoding a protein of SEQ ID NO:4 belonging to

the family of CHMP proteins, a transgenic yeast cell, a genetic construct, and a bacterial, yeast or fungal host cell.

Group VIII, claim(s) 2, 10-14 and 20-21, drawn to a method comprising introducing a genetic modification in yeast and selecting for modulated expression in said yeast of a nucleic acid sequence of SEQ ID NO:5 encoding a protein of SEQ ID NO:6 belonging to the family of CHMP proteins, a transgenic yeast cell, a genetic construct, and a bacterial, yeast or fungal host cell.

Group IX, claim(s) 2, 10-14 and 20-21, drawn to a method comprising introducing a genetic modification in yeast and selecting for modulated expression in said yeast of a nucleic acid sequence of SEQ ID NO:7 encoding a protein of SEQ ID NO:8 comprising a SEC14 domain and exhibiting lipid transfer activity, a transgenic yeast cell, a genetic construct, and a bacterial, yeast or fungal host cell.

Group X, claim(s) 2, 10-14 and 20-21, drawn to a method comprising introducing a genetic modification in yeast and selecting for modulated expression in said yeast of a nucleic acid sequence of SEQ ID NO:9 encoding a CRYO5 like plant protein of SEQ ID NO:10 comprising a RING finger domain, a serine rich domain and an acid domain which comprises the signature "HDQHRDMRLDIDNMSYEELLAERIG", in which no more than 6 substitutions may occur, a transgenic yeast cell, a genetic construct, and a bacterial, yeast or fungal host cell.

Group XI, claim(s) 15-16 and 18, drawn to an isolated protein of SEQ ID NO:2 belonging to the family of CHMP proteins, and use of the protein for modifying abiotic stress tolerance in yeast.

Group XII, claim(s) 15-16 and 18, drawn to an isolated protein of SEQ ID NO:4 belonging to the family of CHMP proteins, and use of the protein for modifying abiotic stress tolerance in yeast.

Group XIII, claim(s) 15-16 and 18, drawn to an isolated protein of SEQ ID NO:6 belonging to the family of CHMP proteins, and use of the protein for modifying abiotic stress tolerance in yeast.

Group XIV, claim(s) 15-16 and 18, drawn to an isolated protein of SEQ ID NO:8 comprising a SEC14 domain and exhibiting lipid transfer activity, and use of the protein for modifying abiotic stress tolerance in yeast.

Group XV, claim(s) 15-16 and 18, drawn to an isolated protein of SEQ ID NO:10 comprising a RING finger domain, a serine rich domain and an acid domain which comprises the signature "HDQHRDMLDIDNMSYEELLALEERIG", in which no more than 6 substitutions may occur, and use of the protein for modifying abiotic stress tolerance in yeast.

Group XVI, claim(s) 15-16, drawn to use of an isolated protein of SEQ ID NO:2 belonging to the family of CHMP proteins for modifying abiotic stress tolerance in plants.

Group XVII, claim(s) 15-16, drawn to use of an isolated protein of SEQ ID NO:4 belonging to the family of CHMP proteins for modifying abiotic stress tolerance in plants.

Group XVIII, claim(s) 15-16, drawn to use of an isolated protein of SEQ ID NO:6 belonging to the family of CHMP proteins for modifying abiotic stress tolerance in plants.

Group XIX, claim(s) 15-16, drawn to use of an isolated protein of SEQ ID NO:8 comprising a SEC14 domain and exhibiting lipid transfer activity for modifying abiotic stress tolerance in plants.

Group XX, claim(s) 15-16, drawn to use of an isolated protein of SEQ ID NO:10 comprising a RING finger domain, a serine rich domain and an acid domain which comprises the signature "HDQHRDMRLDIDNMSYEELLALEERIG", in which no more than 6 substitutions may occur, for modifying abiotic stress tolerance in plants.

Group XXI, claim(s) 21, drawn to an animal host cell comprising an isolated nucleic acid encoding a protein of SEQ ID NO:2 belonging to the family of CHMP proteins.

Group XXII, claim(s) 21, drawn to an animal host cell comprising an isolated nucleic acid encoding a protein of SEQ ID NO:4 belonging to the family of CHMP proteins.

Group XXIII, claim(s) 21, drawn to an animal host cell comprising an isolated nucleic acid encoding a protein of SEQ ID NO:6 belonging to the family of CHMP proteins.

Group XXIV, claim(s) 21, drawn to an animal host cell comprising an isolated nucleic acid encoding a protein of SEQ ID NO:8 comprising a SEC14 domain and exhibiting lipid transfer activity.

Group XXV, claim(s) 21, drawn to an animal host cell comprising an isolated nucleic acid encoding a protein of SEQ ID NO:10 comprising a RING finger domain, a serine rich domain and an acid domain which comprises the signature

"HDQHRDMRLDIDNMSYEELLALEERIG", in which no more than 6 substitutions may occur.

Group XXVI, claim(s) 22-25, drawn to a screening method for identifying nucleic acids capable of modifying tolerance or resistance to cold stress conditions in plants or yeast.

Group XXVII, claim(s) 26, drawn to a method comprising downregulating expression in yeast of a nucleic acid encoding a glycerol phosphate dehydrogenase.

Group XXVIII, claim(s) 26, drawn to a method comprising inhibiting activity of a glycerol phosphate dehydrogenase.

The inventions listed as Groups I-XXVIII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The technical feature linking the inventions of Groups I-XXVIII is modifying tolerance or resistance to cold stress conditions in plants or yeast. However, modifying tolerance or resistance to cold stress conditions in plants or yeast is obvious or anticipated over WO 02/052012, and therefore does not constitute a special technical feature as defined by PCT Rule 13.2, because it does not define a contribution over the prior art.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and

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specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention.

If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Collins whose telephone number is (571) 272-0794. The examiner can normally be reached on Monday-Friday 8:45 AM -5:15 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cynthia Collins
Primary Examiner
Art Unit 1638


11/7/07

CC